## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	January 10,2013
API #:	47-097-03842

Farm name: Bonita Lea Wilfong Nantz	Operator Wel	No.: Thornhill	#1-WV0440	
LOCATION: Elevation: 1508	Quadrangle: _	Buckhannon 7.5'		····
District: Buckhannon	County: Upsh	ur		
Latitude: 38 Feet South of 57 Deg.	30 Min	. Se	c.	<del></del>
Longitude 80 Feet West of 12 Deg.	30 Min	Se	c.	
Company: Mountain V Oil & Gas, Inc.				
Address: PO Box 470	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Bridgeport WV 26330	13 3/8"	31'	31'	sanded in
Agent: S. Michael Shaver	9 5/8"	504'	504'	154 sks
Inspector: Bill Hatfield	7"	1605'	1605'	255 sks
Date Permit Issued: 7-12-2012	4 1/2"	7183'	7183'	150 sks
Date Well Work Commenced: 10-1-12				
Date Well Work Completed: 10-11-12				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 7244				
Total Measured Depth (ft): 7244		-	<u> </u>	
Fresh Water Depth (ft.):				
Salt Water Depth (ft.): 880,1460				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 162, 243	<u> </u>			<del>                                     </del>
Void(s) encountered (N/Y) Depth(s) N		<u> </u>		
OPEN FLOW DATA (If more than two producing formation Producing formation Marcellus Pay:  Gas: Initial open flow Odor MCF/d Oil: Initial open flow 164 MCF/d Final open flow Time of open flow between initial and final tests 216  Static rock Pressure 2500 psig (surface pressure) at	zone depth (ft)_ low_N/AB wBt Hours	7018-7130 bl/d bl/d s	lata on separate s	heet)
Second producing formation Pay zo Gas: Initial open flow MCF/d Oil: Initial open f	one depth (ft) flowB	bl/d	rmation submittee	^ · ^
Final open flow MCF/d Final open flow		ol/d	( <b>4</b> )	?;;
Time of open flow between initial and final tests	Hours	3	(a) 69	૾ૼૢૢૢઌ૽ૺ૽ૺૢૹ૽૽૽
Static rock Pressurepsig (surface pressure) a	fterHou	ırs 🐧		
I certify under penalty of law that I have personally examined all the attachments and that, based on my inquiry of those indithat the information is true, accurate, and complete.	and am familia		mation successive	a Oli cilio accallicite alla
Signature			Date	

Revised

Were core samples taken?	Yes No_X	Were cuttings caught during drilling? Yes X NoNo
Were Electrical, Mechanica	l or Geophysical logs red	corded on this well? If yes, please list GR/NEU/DEN/IND/TEMP/AUDIO
FRACTURING OR STIN	MULATING, PHYSIC. CAL RECORD OF T	E FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, AL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING E FROM SURFACE TO TOTAL DEPTH.
Perforated Intervals, Fractur		
Perforations: 7077-711	0 (92 Holes)	
1702 sks 80/100		
4006 sks 40/70		
Breakdown 5020 psi		
14118 bbls fluid		
Plug Back Details Including	Plug Type and Depth(s	):
Formations Encountered: Surface:		Top Depth / Bottom Depth
***Driller's Log		
Fill	0 - 15	Tully 6900-6920
Sand/Shale	15-164	Silt/Shale 6920-7018
Coal	162-164	Marcellus 7018-7130
Sand/Shale	164-243	Ononodaga 7130- 7140
Coal	243-253	Lime 7140-TD
Sand/Shale	253-1247	
Big Lime	1247-1358	
Injun	1358-1451	
Silt/Shale	1451-6000 **	Driller Log did not show any formations.
***E LOG ***Well wa	s logged from TD to	o 6000 ft
Silt/Shale	6000- 6134	
Sand	6134-6154	
Silt/Shale	6154-6880	
Geneseo	6880-6900	

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## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	January 10,2013	
<b>API</b> #:	47-097-03753	

Farm name: Marvin & Connie Wamsley			Operator Well No.: Wamsley #1-WV0396			
LOCATION: Elevation: 1612		Quad	rangle: Buckha	nnon 7.5'		
District: Washington		Coun	ity: Upshur			
	Dant Cauth of 57	Deg. 30	Min.	Sec.		
Latitude: 38	Feet South of 57	Deg50	IVIIII.	500.		

Mountain V Oil & Gas, Inc. Company: Left in well Cement fill Casing & Used in PO Box 470 up Cu. Ft. Address: drilling Tubing 13 3/8" 31' sanded in Bridgeport WV 26330 31' S. Michael Shaver 9 5/8" 275' 275' 125 sks Agent: Inspector: Bill Hatfield 7" 1604' 245 sks 1604' 10-22-2010 4 1/2" 7145' 7145' 150 sks Date Permit Issued: Date Well Work Commenced: 8-25-12 8-30-12 Date Well Work Completed: Verbal Plugging: Date Permission granted on: Rotary 🗸 Cable Rig Total Vertical Depth (ft): 7210 Total Measured Depth (ft): 7210 Fresh Water Depth (ft.): 64, 212 Salt Water Depth (ft.): Is coal being mined in area (N/Y)? N Coal Depths (ft.): N/A Void(s) encountered (N/Y) Depth(s) N

OF	PEN FLOW DATA (If more the Producing formation Marcellum		roducing formations pleas Pay zone der	se include addition th (ft) 7010-7116	anal data on separate sheet)
	Gas: Initial open flow Odor		Oil: Initial open flow N/A	Bbl/d	
	Final open flow 422			Bbl/d	
	Time of open flow betwee			_Hours	-49
	Static rock Pressure 940		irface pressure) after 24	Hours	LED Y GO
	Second producing formation_		Pay zone depth	n (ft)	OFCE DI and
	Gas: Initial open flow		Oil: Initial open flow	Bbl/d	2013
	Control of the Contro	MCF/d	Final open flow	Bbl/d	Office Of Orio
	Time of open flow between	en initial a	and final tests	_Hours	O. CER MUE OFFICE
	Static rock Pressure	psig (sı	ırface pressure) after	Hours	COO TO PAR
					10000

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

Date

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Were core samples taken?	YesNo_X	Wer Wer	re cuttings caught during	drilling? Yes_X	No
Were Electrical, Mechanical	or Geophysical	logs recorded on this well?	If yes, please list GR/N	EU/DEN/IND/TE	MP/AUDIO
NOTE: IN THE AREA FRACTURING OR STIM DETAILED GEOLOGIC COAL ENCOUNTERED I	ULATING, PH AL RECORD	HYSICAL CHANGE, ETO OF THE TOPS AND I	C. 2). THE WELL LOC BOTTOMS OF ALL	G WHICH IS A SY FORMATIONS, I	YSTEMATIC
Perforated Intervals, Fracturia	ng, or Stimulatir	ng:			
Perforations: 7094-7106	(48 holes) 7	'070-7084 (56 holes) 7	7062-7068 (24 holes	s) 128 total hole	s
2005 sks 80/100					
3615 sks 40/70					
Breakdown 2800 psi					
14178 bbls fluid					<del></del>
Plug Back Details Including	Plug Type and D	Depth(s):			
Formations Encountered: Surface:		Top Depth		Bottom [	<u> Depth</u>
**Drillers Log					
Fill 0-15					
Sand/shale 15-1312					
Big Lime 1312-1448					
Injun 1448-1552					
Sand/Shale 1552-3835					
Benson 3835-3867					
Sand/Shale/Silt 3867-68	342	· · · · · · · · · · · · · · · · · · ·			
Geneseo 6842-6879 (E	Log)				
Tully 6879-6910 (E Log	<u> </u>				
Shale/Silt 6910-7010 (E	E Log)				
Marcellus 7010-7116 (E	E Log)				
Lime 7116-TD (E Log)					

## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	January 10,2013
API#:	47-097-03844

Farm name: David & Sherri Craddock	Operator Well	No.: Shaver His	cks #10-WV0447	
LOCATION: Elevation: 1552	Quadrangle: A	drian 7.5'		
District: Meade	County: Upshu	ır		
Latitude: 38 Feet South of 55 Deg.	00 Min.	Sec		
Longitude 80 Feet West of 15 Deg.	00 Min.	Sec	<b>.</b> .	
Company: Mountain V Oil & Gas, Inc.				,
Address: PO Box 470	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Bridgeport WV 26330	13 3/8"	31'	31'	sanded in
Agent: S. Michael Shaver	9 5/8"	305'	305'	125 sks
Inspector: Bill Hatfield	7"	1872'	1872'	275 sks
Date Permit Issued: 11-5-2012	4 1/2"	7154'	7154	150 sks
Date Well Work Commenced: 11-27-12				
Date Well Work Completed: 12-5-12				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 7209				
Total Measured Depth (ft): 7209				
Fresh Water Depth (ft.): 86, 118, 222				
Salt Water Depth (ft.): 990, 1155				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): N/A				
Void(s) encountered (N/Y) Depth(s) N				
OPEN FLOW DATA (If more than two producing formation	one please inclu	de additional d	ata on senarate sl	heet)
Producing formation Marcellus Pay 2	zone depth (ft) <sup>7</sup>	000 7110		
Gas: Initial open flow Odor MCF/d Oil: Initial open fl		ol/d		
Final open flow 422 MCF/d Final open flow		I/d		COS
Time of open flow between initial and final tests 216	Hours		TED	0
Static rock Pressure 2200 psig (surface pressure) af	ter 24 Hour	rs	CE CO	0 ( 0
Second producing formationPay zo	ne depth (ft)		China Con	My KO HOL
Gas: Initial open flowMCF/d Oil: Initial open fl		bl/d	3000	23 Les Man
Final open flow MCF/d Final open flow		ol/d	Ollin Co	Ser Sec
Time of open flow between initial and final tests  Static rock Pressure psig (surface pressure) af		rs		Section 1
		14 4 1 6		on this document and he information I believe
I certify under penalty of law that I have personally examined all the attachments and that, based on my inquiry of those indi-	and am familiar	with the infor	mation submitted	he information I believe
that the information is true, accurate, and complete.	viduais illilliedia	atery responsit	ic for obtaining t	
1/1/1/1.		,	2-4-13	
Signature			Date	

ferjeed

Were core samples taken? Yes	No_X	Were	cuttings caught during dri	illing? YesX No
Were Electrical, Mechanical or Geop	hysical logs recor	rded on this well? I	f yes, please list GR/NEL	J/DEN/IND/TEMP/AUDI
NOTE: IN THE AREA BELO FRACTURING OR STIMULATI DETAILED GEOLOGICAL RE COAL ENCOUNTERED BY THE	NG, PHYSICAL CORD OF THI E WELLBORE F	CHANGE, ETC. E TOPS AND BO	2). THE WELL LOG WOTTOMS OF ALL FO	VHICH IS A SYSTEMAT
Perforated Intervals, Fracturing, or St	timulating:			
Perforations: 7056-7092 (108	Holes)			
1475 sks 80/100				
4197 sks 40/70				
Breakdown 2229 psi				
14276 bbls fluid				
Plug Back Details Including Plug Typ	pe and Depth(s):			
Formations Encountered: Surface:  ***Drillers Log		Top Depth		Bottom Depth
Fill 0-15		Marcellu	ıs 7000-7110 (E Log	)
Sand/Shale 15-1250			10-TD (E Log)	,
Big Lime 1250-1519	<del></del> -			
Injun 1519-1649				
Sand/Shale/Silt 1649-2297				
5th Sand 2297-2389				
Sand/Shale/Silt 2389-3499				
3rd Riley 3499-3684				
Sand/Shale/Silt 3684-3899				
Benson 3899-3989				
Sand/Shale/Silt 3989-6844				
Geneseo 6844-6878 (E Log)				
Tully 6878-6908 (E Log)				
Shale/Silt 6908-7000 (E Log)				

## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE: January 10,2013 API #: 47-097-03843

Farm name: Hayden Morgan ET UX	Operator Well	No.: Hayden Mo	organ #2-WV0446	
LOCATION: Elevation: 1554	Quadrangle: _	Adrian 7.5'		
District: Meade	County: Upshi	ur		
Latitude: <sup>38</sup> Feet South of <sup>55</sup> Deg.	00 Min.	. Sec		
Longitude 80 Feet West of 15 Deg.				
Mountain V Oil & Gas Inc				
Company: Widultain V On & Gas, Inc.	Г		T- 01 11	
Address: PO Box 470	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Bridgeport WV 26330	13 3/8"	31'	31'	sanded in
Agent: S. Michael Shaver	9 5/8"	305'	305'	125 sks
Inspector: Bill Hatfield	7"	1608'	1608'	245 sks
Date Permit Issued: 9-21-2012	4 1/2"	7156'	7156	150 sks
Date Well Work Commenced: 10-13-12				
Date Well Work Completed: 10-18-12		1		
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 7212				
Total Measured Depth (ft): 7212				
Fresh Water Depth (ft.): 86, 125, 250				
Salt Water Depth (ft.): 880,1460				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): N/A				
Void(s) encountered (N/Y) Depth(s) N				
OPEN FLOW DATA (If more than two producing formati	ons please inclu	de additional d	ata on separate sl	neet)
	zone depth (ft)	5990-7100		
Gas: Initial open flow Odor MCF/d Oil: Initial open f		bl/d		600
Final open flow Odor MCF/d Final open flow		ol/d	TED	9
Time of open flow between initial and final tests 216			CELLO	
Static rock Pressure 800 psig (surface pressure) a	fter 24 Hou	rs	BELO.	2013
Second producing formationPay zo			MOS C	S SULECHE
Gas: Initial open flowMCF/d Oil: Initial open		bl/d	O. 665	ALL DIO.
Final open flowMCF/d Final open flo		ol/d		Option.
Time of open flow between initial and final tests	Hours		rel C	J. S. S.
Static rock Pressurepsig (surface pressure) a	fterHou	rs	1,10	heet)
I certify under penalty of law that I have personally examined	and am familia	r with the infor	mation submitted	on this document and
all the attachments and that, based on my inquiry of those ind	ividuals immedi	ately responsib	le for obtaining t	he information I believe
that the information is true, accurate, and complete				
1 ll Alimn	n	_ 2	-4-13	
Signature		W. W	Date	

Revised

Were core samples taken? Yes	No_X	Were c	uttings caught during o	lrilling? Yes <u></u>	_No
Were Electrical, Mechanical or Geo	physical logs recor	ded on this well? If	yes, please list_GR/NE	U/DEN/IND/TEN	/IP/AUDI
NOTE: IN THE AREA BEL FRACTURING OR STIMULAT DETAILED GEOLOGICAL R COAL ENCOUNTERED BY TH	TING, PHYSICAL ECORD OF THI IE WELLBORE F	CHANGE, ETC. 2 E TOPS AND BO	). THE WELL LOG TTOMS OF ALL F	WHICH IS A SYS	STEMAT
Perforated Intervals, Fracturing, or Perforations: 7042-7076 (104	· ·				
1676 sks 80/100				****	
3902 sks 40/70					
Breakdown 3309 psi		-			
13960 bbls fluid					
Plug Back Details Including Plug T	ype and Depth(s):				
Formations Encountered: Surface:		Top Depth	/	Bottom De	epth
**Driller's Log					
Fill 0-15					
Sand/Shale 15-1403					
Big Lime 1403-1668					
njun 1668-1850					
Sand/Shale/Silt 1850-2480					
5th Sand 2480-2570					
Sand/Shale/Silt 2570-4085					
Benson 4085-4200					-2-
Sand/Shale/Silt 4200-6832					
Geneseo 6832-6867					
Tully 6867-6910					
Shale/Silt 6910-6990					
Marcellus 6990-7100					
ime 7100-TD					

Rev (9-11)

#### State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	January 10,2013	
API#:	47-097-03766	

LOCATION: Elevation: 1589			Quadran	gle: Buckha	nnon 7.5'		
District: Washington			County:	Upshur			
Latitude: 38	Feet South of 57	Deg.		Min.	Sec.	3	
Longitude 80	Feet West of 12	Deg.	30	Min.	Sec.		

Company: Would will V On & Gas, Inc.				
Address: PO Box 470	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Bridgeport WV 26330	13 3/8"	31'	31'	sanded in
Agent: S. Michael Shaver	9 5/8"	345'	345'	115 sks
Inspector: Bill Hatfield	7"	1731'	1731'	255 sks
Date Permit Issued: 10-21-2010	4 1/2"	7145'	7145'	150 sks
Date Well Work Commenced: 9-18-12				
Date Well Work Completed: 9-28-12				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 7213				
Total Measured Depth (ft): 7213				
Fresh Water Depth (ft.): 64, 212				
Salt Water Depth (ft.): 880,1460				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 310				
Void(s) encountered (N/Y) Depth(s) N				

	Void(s) encountered (N/Y	) Depth(s	) N				
	EN FLOW DATA (If more		roducing formatio	ns please inclu	de additional da	ta on separate sh	eet)
	Producing formation Marcello			one depth (ft)			
(	Gas: Initial open flow Odor				bl/d		
	Final open flow 198	_MCF/d	Final open flow	Bb	ol/d		
	Time of open flow betwe	en initial a	nd final tests 216	Hours			
5	Static rock Pressure 2200	psig (su	rface pressure) aft	er 24 Hou	rs		
	Second producing formation	9	Pay zor	ne depth (ft)			0 -09
(	Gas: Initial open flow	_MCF/d	Oil: Initial open flo	owB	bl/d	-	MED 4 GO
	Final open flow	MCF/d	Final open flow	Bb	ol/d	-cO <sup>k</sup>	is our
	Time of open flow betwee					Br	J1.
:	Static rock Pressure	psig (su	rface pressure) aft	erHou	rs	Office	WED and Gos

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete

Signature

2-4-13 Date Alassed

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list GR/NEU/DEN/IND/TEMP/A	OIDL
NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTER FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEM DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUCOAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.	IATIC
Perforated Intervals, Fracturing, or Stimulating:	
Perforations: 7026-7070 (102 Holes)	
1977 sks 80/100	
3918 sks 40/70	
Breakdown 3620 psi	
14404 bbls fluid	
Plug Back Details Including Plug Type and Depth(s):	
Formations Encountered: Top Depth / Bottom Depth Surface:	
Fill 0-20	
Sand/Shale 20-310	
Coal 310-320	
Sand/Shale 320-1300	
Big Lime 1300-1385	
Injun 1385-1590	
Sand/Shale 1590-3865	
Benson 3865-3874	
Sand/Shale/Silt 3874-6800	
Geneseo 6800-6842 (E Log)	
Tully 6842-6890 (E Log)	
Shale 6890-6980 (E Log)	
Marcellus 6890-7090 (E Log)	
Lime 7090-TD (E Log)	

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## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	1/03/2013	
API #:	51-01484	

3.355.0386.0-318.00-026.000			ator Well No.: S		
LOCATION: Elevation: 125	2.12	Quad	rangle: Majorsv	ille	
District: Sand Hill		Coun	ty: Marshall		
Latitude: 12,509'	Feet South of 40	Deg. 00	Min. 00	Sec.	
Longitude 2,797'	Feet West of 80	Deg. 32	Min. 30'	Sec.	

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
1000 Consol Energy Dr. Canonsburg, PA	20"	40'	40'	5.5 yds
Agent: Kent Wright				
Inspector: Derek Haught				w(E)
Date Permit Issued: 5/11/2011				
Date Well Work Commenced: 5/19/2012				7
Date Well Work Completed: 5/21/2012				
Verbal Plugging:				
Date Permission granted on:			14	
Rotary Cable Rig V				
Total Vertical Depth (ft): 40'				
Total Measured Depth (ft): 40'				
Fresh Water Depth (ft.): not penetrated				
Salt Water Depth (ft.): not penetrated				
Is coal being mined in area (N/Y)? yes				
Coal Depths (ft.): none penetrated				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more	than two produci	ng formations plea	se include addi	tional data on separate she	et)
Producing formation N/A		Pay zone de		_	
Gas: Initial open flow N/A	MCF/d Oil: In	itial open flow N/A	Bbl/d		Received Gas Office of Oil & Gas
Final open flow N/A	_MCF/d Fina	open flow N/A	Bbl/d		Office of
Time of open flow between	en initial and fina	al tests N/A	_Hours		11 301
Static rock Pressure N/A	psig (surface p	oressure) after N/A	Hours		JAN
Second producing formation	<sub>1</sub> N/A	Pay zone depth	n (ft) N/A		
Gas: Initial open flow	MCF/d Oil: In	itial open flow	Bbl/d		
Final open flow	_MCF/d Fina	l open flow	Bbl/d		
Time of open flow between	en initial and fina	al tests	_Hours		
Static rock Pressure	psig (surface p	oressure) after	Hours		

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Laura L. Celkers Signature 1-7-13 Date . . . . .

Were core samples taken? YesNo	<u>,X</u>	Were cuttings caught during d	rilling? Yes	No_X
Were Electrical, Mechanical or Geophysica	l logs recorded on this w	rell? If yes, please list No		
NOTE: IN THE AREA BELOW P FRACTURING OR STIMULATING, P DETAILED GEOLOGICAL RECORI COAL ENCOUNTERED BY THE WEI	HYSICAL CHANGE,  OF THE TOPS AN	ETC. 2). THE WELL LOG TO BOTTOMS OF ALL FO	WHICH IS A SYS	TEMATIC
Perforated Intervals, Fracturing, or Stimular	ting:			
None				
Plug Back Details Including Plug Type and	Donth(a):			
	Depui(s):			
······································				
Formations Encountered: Surface:	Top Depth		Bottom Der	<u>oth</u>
Surface.				
Conductors only were set and	at a depth of 40'.			
<u> </u>				

## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	01/10/2013	
API#:	47-023-00035	

Well operation	or a resport or v	ven work			
Farm name: ALLEGHENY MINING CORP.	_ Operator Wel	Il No.: 1H			
LOCATION: Elevation: 3,204' GL	_ Quadrangle: _	GRENNLAND G	SAP 7.5		
District: UNION	County: GRANT				
Latitude: 800 Feet South of 39 Deg.		i. <sup>30</sup> Se	c.		
Longitude 7460 Feet West of 79 Deg	gMin	Se			
Company: CARRIZO (MARCELLUS) WV LLC					
Address: 500 DALLAS, SUITE 2300	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.	
HOUSTON, TX 77002	13-3/8"	398'	398'	552 cft	
Agent:	9-5/8"	3,288'	3,288'	1362 cft	
Inspector:	5-1/2"	13,466'	13,466'	2558 cft	
Date Permit Issued: 10/26/11					
Date Well Work Commenced: 01/09/12					
Date Well Work Completed: 5/26/12					
Verbal Plugging:					
Date Permission granted on:					
Rotary Cable Rig					
Total Vertical Depth (ft): 10,271'					
Total Measured Depth (ft): 13,476'					
Fresh Water Depth (ft.): 100'					
Salt Water Depth (ft.): NA					
Is coal being mined in area (N/Y)? NO					
Coal Depths (ft.):					
Void(s) encountered (N/Y) Depth(s) NONE					
OPEN FLOW DATA (If more than two producing formation Producing formation MARCELLUS SHALE Pay :  Gas: Initial open flow 635 MCF/d Oil: Initial open flow Time of open flow between initial and final tests 48 Static rock Pressure 1000 psig (surface pressure) and Second producing formation Pay zo Gas: Initial open flow MCF/d Oil: Initial	zone depth (ft) <sup>6</sup> low 0 Bb v 0 Bb B Hours fter Hour	9,800 bl/d l/d s		heet)	
Final open flowMCF/d Final open flow			IAN		
Time of open flow between initial and final tests	Hours	100000	9.		
Static rock Pressurepsig (surface pressure) af	terHour	S			

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature 01/10/13
Date

Were core samples taken? YesNo_X		cuttings caught during drilling? Yes X No
Were Electrical, Mechanical or Geophysical logs DENSITY, RESISTIVITY, SONIC & ECS LOGS	recorded on this well?	If yes, please list
FRACTURING OR STIMULATING, PHYS	ICAL CHANGE, ETC THE TOPS AND B	1). DETAILS OF PERFORATED INTERVAL . 2). THE WELL LOG WHICH IS A SYSTEMATI OTTOMS OF ALL FORMATIONS, INCLUDIN TO TOTAL DEPTH.
PERFORATED AND FRAC'D 12 STAG	FS FROM 10 273' /	md) - 13 342' (md) WITH
3,889,600 LBS SAND AND 96,904 BBL		ma) - 10,042 (ma) WITH
Phys Park Park II I I I Phys Rev 12 Phys		
Plug Back Details Including Plug Type and Deptl	h(s): KICK-OFF PL	UG: 272 SACKS CLASS A
9,974' - 10,202'		
_		
Formations Encountered: Surface:	Top Depth	/ Bottom Depth
<del>2</del>		
DK GREY SILTSTONE	0	600
GREY SANDSTONE	600	1100
RED/BROWN SHALE	1100	1900
OK GREY LIMESTONE	1900	2300
OK GREY SILTSTONE	2300	3500
OK GREY SHALE	3500	4450
T GREY SANDSTONE	4450	4600
LT GREY SILTSTONE	4600	4900
DK GREY SHALE	4900	5500
T GREY SILTSTONE	5500	5700
OK GREY SHALE	5700	9358
TULLY LIMESTONE	9358	9371
HAMILTON SHALE	9371	9800
JPPER MARCELLUS SHALE	9800	9843
CHERRY VALLEY LIMESTONE	9843	9895
LOWER MARCELLUS SHALE	9895	9963
ONONDAGO	9963	10090
	- • <del>-</del>	10070
ORISKANY SANDSTONE	10090	

7/5/12

### State of West Virginia Division of Environmental Protection Section of Oil and Gas

API # 47-049-02183

#### Well Operator's Report of Well Work

Farm name:	Donna	Operator Well No: #6H					
Location:	Elevation: 1,171	Quadrangle: Manningt	Quadrangle: Mannington				
	District: Lincoln	County: Marion	County: Marion				
	Latitude: 39 ° 34' 27.6"						
	Longitude: 80 ° 17' 40.8"	Casing &	Used in	Left in	Cement Fill Up		
Company:	Eastern American Energy Corporation 501 56 <sup>Th</sup> Street Charleston, WV 25304	Tubing 20"	Well 40'	Well 40'	<b>Cu. Ft</b> 40 cu ft.		
Agent: Rodney	A. Winters	13 3/8"	741'	741'	721 cu ft		
Inspector:		9 5/8"	3,958'	3,958'	1280 cu ft		
Permit Issued:	9/1/2011 menced: 10/27/2011	5 1/2"	10,166	10,166	1248 cu ft		
Well work com Verbal plugging Permission gran Rotary Total Depth (ft) Fresh Water de Salt-water dept	pleted: 7/03/2012 g nted on: _X_ Cable Rig ): 10,166' pths (ft): 236' hs (ft): ined in the area? (Y/N): N	2-3/8"	8,049	8,049	Tubing heac		
Open Flow Data  Gas: Initial open flow114 MCF/d Oil: Initial open flow0 Bbl/d Final open flow851 MCF/d Final open flow0 Bbl/d Time of open flow between initial and final tests1 Days Static rock pressure:2716 psi Surface pressure after12 Hours.  1st Producing Formation Devonian Shale Pay zone depth (ft) 7533'-7688'  2nd Producing Formation Pay zone depth (ft) Pay zone depth (ft)   NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: () DETAILS OF PERFORATED INVERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, FICELYDIN COVAL ENCOUNTERED BY THE FOR: Energy Corporation of America Rodney A. Winters By: Designated Agent Date: July 11, 2012							

STAGE ONE:

Devonian Shale

30 Holes 10,060' – 9,832'

Water Frac 301,400 Lbs sand. 7,766 bbl CFL

STAGE TWO:

Devonian Shale

30 Holes 9,723' – 9,495'

Water Frac 299,800 Lbs sand.

7,405 bbl CFL

STAGE THREE:

Devonian Shale

30 Holes 9,376' – 9,158'

Water Frac 301,200 Lbs sand. 7,600 bbl CFL

STAGE FOUR:

Devonian Shale

30 Holes 9,048' - 8,822'

Water Frac 299,400 Lbs sand.

7,465 bbl CFL

STAGE FIVE:

Devonian Shale

30 Holes 8,712' – 8,492'

Water Frac 302,900 Lbs sand.

7,464 bbl CFL

STAGE SIX:

Devonian Shale

30 Holes 8,375' – 8,146'

Water Frac 300,800 Lbs sand. 7,016 bbl CFL

10.7000

FORMATION COLOR,	TOP FEET	BOTTOM FEET
HARD OR SOFT		
Top Fill	0	40
Sand & Shale	40	1150
Maxton	1700	1762
Little Lime	1906	1920
Pencil Cave	1920	1938
Big Lime	1938	2030
Big Injun	2030	2138
50 Foot	2632	2683
0 Foot	2850	2890
Gordon	2923	2988
Fifth	3101	3119
Benson	4696	4708
Alexander	5624	5648
Geneseo	7402	7450
Tully	7450	7490
Hamilton	7490	7533
Upper Marcellus	7533	7618
Cherry Valley	7618	7623
Lower Marcellus	7623	7688
Onondaga	7688	7703

100

### State of West Virginia Division of Environmental Protection Section of Oil and Gas

API # 47-049-02182

#### Well Operator's Report of Well Work

	•••	оп орегиот в	report of men m					
Farm name:	Donna		Operator W	Operator Well No: #5H				
Location:	Elevation: 1,171		Quadrangle:	Manningto	on			
	District: Lincoln		County: Mar	rion				
	Latitude: 39 ° 34' 27.6"							
	Longitude: 80 ° 17' 40.8"			Casing &	Used in	Left in	Cement Fill Up	
Company:	Eastern American Energy C 501 56 <sup>Th</sup> Street	Corporation		Tubing	Well	Well	Cu. Ft	
	Charleston, WV 25304			20"	40'	40'	40 cu ft.	
Agent: Rodne	y A. Winters			13 3/8"	722'	722'	722 cu ft	
Inspector:				9 5/8"	3,958'	3,958	1727 cu ft	
Permit Issued:				5 1/2"	11,288	11,288	1584 cu ft	
Well work con Verbal pluggir				2-3/8"	7,988	7,988	Tubing head	
	X_ Cable Rig							
	epths (ft): 236'							
Salt-water dep	ths (ft): nined in the area? (Y/N): N							
Coal depths (fi								
Open Flow Da	ta	MORUL	NI 1 1/4 1	g 0	DM/4			
Gas:	Initial open flow835 Final open flow736	MCF/d	Final open f	low 0	Bbl/d			
	Time of open flow between Static rock pressure:269	n initial and fin	al tests1		_ Days			
-	Static rock pressure:269	90 psi S	Surface pressure afte	er12	Hours.	,		
1 <sup>st</sup> Pro	ducing Formation _Devoniar	n Shale	Pay zone de					
2 <sup>rd</sup> Pro	oducing Formation	F	Pay zone depth (ft)					
NOTE: ON B	ACK OF THIS FORM PUT	THE FOLLOW	ING: 1) DETAILS	OF PERF	ORATED	INVERV	ALS,	
EDACTURIN	GOR STIMILLATING PHY	SICAL CHAN	JOE ETC 2) THE	WELL IC	OG WHICI	H IS A SY	STEMATIC	
DETAILED	EOLOGICAL RECORD OF	ALLIORMA	TIUXS, IXLUIX	NG YOAK	LNCOU	N'I ERED	BY HIL	
WELLBORE.		//	4 11/	///				

For: Energy Corporation of America

Rodney A. Winters By: Designated Agent

Date: July 11, 2012

JUL 12 2012

STAGE ONE: Devonian Shale

30 Holes 11,227' – 11,067'

Water Frac 99,400 Lbs sand. 6,045 bbl CFL

STAGE TWO: Devonian Shale

30 Holes 10,775' – 10,547'

Water Frac 68,000 Lbs sand. 4,128 bbl CFL

STAGE THREE: Devonian Shale

30 Holes 10,432' - 10,210'

Water Frac 300,200 Lbs sand. 7,596 bbl CFL

STAGE FOUR: Devonian Shale

30 Holes 10,050' – 9,873'

Water Frac 301,700 Lbs sand. 7,623 bbl CFL

STAGE FIVE: Devonian Shale

30 Holes 9,764' – 9,528'

Water Frac 298,700 Lbs sand. 7,482 bbl CFL

STAGE SIX: Devonian Shale

30 Holes 9,427' – 9,196'

Water Frac 312,700 Lbs sand. 7,558 bbl CFL

STAGE SEVEN: Devonian Shale

30 Holes 9,092' - 8,862'

Water Frac 299,900 Lbs sand. 7,354 bbl CFL

STAGE EIGHT: Devonian Shale

30 Holes 8,748' - 8,525'

Water Frac 300,100 Lbs sand. 7,410 bbl CFL

STAGE NINE: Devonian Shale

30 Holes 8,416' – 8,192'

Water Frac 291,500 Lbs sand. 7,192 bbl CFL

W. 102

FORMATION COLOR,	TOP FEET	BOTTOM FEET
HARD OR SOFT		
Top Fill	0	40
Sand & Shale	40	1150
Maxton	1700	1762
Little Lime	1906	1920
Pencil Cave	1920	1938
Big Lime	1938	2030
Big Injun	2030	2138
50 Foot	2632	2683
0 Foot	2850	2890
Gordon	2923	2988
Fifth	3101	3119
Benson	4696	4708
Alexander	5624	5648
Geneseo	7402	7450
Tully	7450	7490
Hamilton	7490	7533
Upper Marcellus	7533	7618
Cherry Valley	7618	7623
Lower Marcellus	7623	7688
Onondaga	7688	7703

W12 10 1.

## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	1/03/2013	
API#:	51-01460	

arm name: Richard E. Mccausland	Operator Well No.: SHL4BHS				
OCATION: Elevation: 1250.21	Quadrangle: Majorsville				
District: Sand Hill  Latitude: 12,525' Feet South of 40 Deg.  Longitude 2,808' Feet West of 80 Deg.		shall 1. 00 Se 1. 30' Se			
Company: CNX Gas Company, LLC					
Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.	
1000 Consol Energy Dr. Canonsburg, PA	20"	40'	40'	5.5 yds	
Agent: Kent Wright					
Inspector: Derek Haught					
Date Permit Issued: 5/11/2011					
Date Well Work Commenced: 5/18/2012					
Date Well Work Completed: 5/21/2012					
Verbal Plugging:					
Date Permission granted on:					
Rotary Cable Rig V					
Total Vertical Depth (ft): 40'					
Total Measured Depth (ft): 40'					
Fresh Water Depth (ft.): not penetrated					
Salt Water Depth (ft.): not penetrated					
Is coal being mined in area (N/Y)? yes					
Coal Depths (ft.): none penetrated					
Void(s) encountered (N/Y) Depth(s) N					
OPEN FLOW DATA (If more than two producing formation Producing formation N/A Pay Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A MCF/d Final open flow Time of open flow between initial and final tests N/A Static rock Pressure N/A psig (surface pressure) a  Second producing formation N/A Pay zoon Gas: Initial open flow MCF/d Oil: Initial open flow MCF/d Final open flow MCF/d Final open flow Time of open flow between initial and final tests Static rock Pressure psig (surface pressure) a	zone depth (ft)  low N/A	N/A Bbl/d s urs /A Bbl/d bl/d s bl/d s		Received Case Office of Oil & Case  JAN 10 7617	

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Signature

Date

Were core samples taken? Yes\_\_\_\_ No XWere cuttings caught during drilling? Yes No X Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list No NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH. Perforated Intervals, Fracturing, or Stimulating: None Plug Back Details Including Plug Type and Depth(s): Top Depth / Formations Encountered: Surface: Conductors only were set and at a depth of 40'.

# State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	8-23-2012
API#:	47-033-05628

OCATION: Elevation: 1245.39	Quadrangle:	West Milford		
District: Union	-			
	County: Harr		ec.	
	eg. 27 Mir			
Company: Dominion Transmission, Inc.				
Address: 445 West Main St	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Clarksburg, WV 26301				
Agent: James D. Blasingame	16"	33	33	CTS
Inspector: Tristan Jenkins	10 3/4 "	849	849	CTS (600sks)
Date Permit Issued: 5-12-2012	7"	2031	2031	CTS (707sks)
Date Well Work Commenced: 7/25/2012	4 1/2"	4541	4541	Cement Top 1400
Date Well Work Completed: 8/17/2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 4610				
Total Measured Depth (ft): 4610				
Fresh Water Depth (ft.): 56'				
Salt Water Depth (ft.): 1698'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 49'				
Void(s) encountered (N/Y) Depth(s) N				
Gas: Initial open flowMCF/d Oil: Initial open	y zone depth (ft)_ 1 flowB owBtHours	3300-4406 bl/d bl/d	lata on separate s	sheet)
	zone depth (ft) 24	58-3184		
Gas: Initial open flow 198 MCF/d Oil: Initial open Final open flow 822 MCF/d Final open flow 198		bl/d		المورد
Final open flow 822 MCF/d Final open flow Time of open flow between initial and final tests		ol/d		A grand Live
Static rock Pressure 600 psig (surface pressure)				C.C.
rtify under penalty of law that I have personally examine the attachments and that, based on my inquiry of those incention the information is true, accurate, and complete.				
Signature		_	Date	
Signature	•		Jaco	

Were core samples taken? Yes	No_X	Were cuttings caught du	uring drilling? Yes	No_X
Were Electrical, Mechanical or Geop	hysical logs recorded or	n this well? If yes, please list G	amma Ray, Temp, Comp Den	sity, Neutron, PE
NOTE: IN THE AREA BELC FRACTURING OR STIMULATI DETAILED GEOLOGICAL RE COAL ENCOUNTERED BY THI	NG, PHYSICAL CHA CORD OF THE TO	NGE, ETC. 2). THE WELL PS AND BOTTOMS OF A	LOG WHICH IS A SYLL FORMATIONS,	YSTEMATIC
Perforated Intervals, Fracturing, or S	timulating:			
1st Stage : Benson 4397-4406	(20 shots) ; Foam	Frac ; 300 sks 20/40 san	nd ; 500 gal acid	
2nd Stage : Balltown 3300-33	39 (21 shots) ; Foar	m Frac ; 300 sks 20/40 sa	and ; 500 gal acid	
3rd Stage: Speechley 2778-3	184 ( 20 shots) : Fo	am Frac : 340 sks 20/40	sand; 500 gal acid	
4th Stage : Bayard 2458-2468	(20 shots) : Foam	Frac 300 sks 20/40 sand	; 500 gal acid	
Plug Back Details Including Plug Ty	pe and Depth(s): None	9	***************************************	
Formations Encountered: Surface:	Тор	Depth /	Bottom I	<u>Depth</u>
	SEE ATTACH	HMENT		
				<u> </u>
	·	have a more supported to the support of the support		
	-			·
,				

#### **Formation Description**

Formation	Тор	Bottom	Show
Soil	0	10	
Shales & Sand	10	49	
Coal	49	51	
Shales & Red Rock	51	800	Damp @ 56'
Sands & Shales	800	1170	, ,
Salt Sands	1170	1350	
Shale	1350	1480	
Little Lime	1480	1504	
Shale	1504	1530	
Big Lime	1530	1597	
Big Injun	1597	1690	1690 Salt Water & Gas
Shales	1690	1980	
Gantz	1980	2020	
Sand & Shale	2020	2100	
Gordons	2100	2250	
Shale	2250	2310	
4th Sand	2310	2320	
Shale	2320	2370	
5th Sand	2370	2400	
Shale	2400	2455	
Bayard	2455	2465	
Shale & Sand	2465	2982.	
Speechley	2982	2995	
Shales & Siltstones	2995	3300	
Balltown	3300	3330	
Shales	3330	4100	
Riley	4100	4170	
Shales	4170	4400	
Benson	4400	4410	
Shales	4410	TD	
TD	4610		

### State of West Virginia Department of Environmental Protection Office of Oil and Gas

DATE: 10/28/2011 API#: 4700103242

#### Well Operator's Report of Well Work

Farm name:	M	ATLICK H	EIRS	Operator	Well	No.:	1				
LOCATION	Elevation:		1736	Quadran	gie:		F	ELLOW	SVILL	E	
	District:	c	OVE	County:			r	BARBOU	no.		
	Latitude:	2,240			Deg.	17	Min.				
	Longitude:	10,030	Feet West of	79	Deg.		Min.				
Company:	Texas Keystone	, Inc.									
	560 Epsilon Dr			Casing & Tubing	Ş.	Used in drilling		Lest in v	vell	Cement Cu. Ft.	fill up
	Pittsburgh, PA	15238	····								
	Ion Farmer			13 3/	3"	42		42		Sande	d In
	Bryan Harris										
Date Permi		06/2	3/11	9.5/	3"	550		550	)	200	0
Date Well Y	Work Commen	ced: 08/3	1/11								
	Work Complete	d: 09/1	2/11	7"		1982	2	198	2	260	0
	gging:										
Date Permi	ssion granted o	n:		4 1/2	**	0		576	7	24	i
Rotary	X Cable	Rig									
Total Verti	cal Depth (ft.):	5810									
Total Meas	ured Depth(ft.)	:5810									
	er Depth (ft.):		850								
Salt Water	Depth (ft):	סכפר פתסם	ted								
Is coal bein	g mined in the	area (N/Y)	? N								
Coal Depth	is (ft.):	590, 715									
Void(s) end	ountered (N/Y)	Depth(s):	N								
OPEN FLO			wo producing form	ations ple	ase inc						
	Producing form		5TH ELK			Pay zone				673 - 56	
	Gas: Initial ope		G/S TSTM			MCF/D MCF/D					_Bbl/d
	Final open flow		290		37/A	Hours	OII. I	mar obe	a Hois:		_201/0
	Static rock Pres		n initial and final to 1350	313.	NIA	psig(surf			far.	120	Hours
	SMIIC FOCK PTE	ssure.	1330			_barg(aucr	ace pr	essure, a	1001		
	Second Produc	ing formation	on: 3RD ELK			Pay zone	Depti	h (ft)	:	5307 <b>-</b> 53	20
	Gas: Initial ope	n flow:	Co-mingled			MCF/D	Oil: I	initial ope	roft as	r: 0	_Bbl/d
	Final open flov	v	Co-mingled			MCF/D	Oil: I	Final ope	n flow	: 0	Bbl/d
	Time of open f		n initial and final to	ests:		Hours					
	Static rock Pre	ssure:	Co-mingled			psig(suri	face pr	essure) a	fter	_	_Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is que, accurate, and complete.

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WV Department of Environmental Protection

Third Producing formatio	n: ALEXANDER	Pay zone	Depth (ft) 4	581 - 45	:22
Gas: Initial open flow:	Co-mingled		• • •		Bbl/d
Final open flow	Co-mingled		Oil: Final open flow:		Bbl/d
Time of open flow between	en initial and final tests:	Hours			
Static rock Pressure:	Co-mingled	psig(sur	face pressure) after	-	Hours

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WV Department of Environmental Protection

Were core samples taken?	No_X Were o	uttings caught during w	niling? Yes	No X
	N Mechanical, Y Y/N			
note: in the area belo fracturing or stimul systematic detailed formations, includin	LATING, PHYSICAL CH. GEOLOGICAL RECORD	ANGE, ETC. 2). THE 'OF THE TOPS AND	WELL LOG WHICH BOTTOMS OF ALL	IS A
Perforated Intervals, Fracturing				
Perfed 5th Elk 5673' - 5677' (1	6 shota). BD 3596 #. 150 sk:	: 40/70 & 102 sks 20/40	), 568 bbl. Gel Erac	
Perfed 3rd Elk 5307' - 5320' (2	4 shots). BD 2580 #, 250 sk	40/70 & 114 sks 20/40	). 727 bbl. Gel Frac	
Perfed Alexander 4581' - 4588'	(21 shots). BD 3538 #. 200	sks 40/70 & 110 sks 20	740. 654 bbl. Gel Frac.	~
Formacions Encountered:	Tep Depth	Battom Depth	Notes:	
	Top Depth 0	Bottoni Deoti:	Notes	
FIL			Notes	
FIL SANDY SHALE	Q	15	Notes	
Formations Encountered: FELL SANDY SHALE SANDSTONE SHALE	0 13	15 30	Notes:	
fell Bandy Shale Bandstone Bhale	0 15 30	15 30 42	Notes:  DAMP 2: 165	
HEL MANDY SHALE MANDSTONE HALE MANDY SHALE	0 13 30 42	15 30 42 130		
FILL MANDY SHALE MANDSTONE HALE MANDY SHALE MANDY SHALE MANDSTONE	0 15 30 42 136	15 30 42 130 165	DAMP & 165	
ELL ANDY SHALE ANDSTONE HALE ANDY SHALE ANDY SHALE ANDSTONE ANDY SHALE	0 15 30 42 130 165	15 30 42 130 165 355	DAMP & 165	
FILL FAMILY SHALE FAMILY SHALE FINALE	0 15 30 42 130 165 355	15 30 42 130 165 355 540	DAMP & 165	
EL ANDY SHALE ANDSTONE HALE ANDY SHALE ANDSTONE ANDY SHALE GOAL ANDY SHALE	0 15 30 42 130 165 355 550	15 30 42 130 165 355 540 685	DAMP © 165 WEEN & 180	
EL ANDY SHALE ANDSTONE HALE ANDY SHALE ANDSTONE ANDY SHALE GOAL ANDY SHALE GOAL	0 15 30 42 130 165 355 550 685	15 30 42 130 165 355 540 685 775	DAMP & 165	
EL ANDY SHALE ANDSTONE HALE ANDY SHALE ANDSTONE ANDY SHALE GOAL ANDY SHALE GOAL ANDY SHALE GOAL ANDY SHALE GOAL	0 13 30 42 130 165 335 590 685	15 30 42 130 165 355 540 685 775	DAMP © 165 WEEN & 180	
HELL HANDY SHALE HANDSTONE HALE HANDY SHALE HANDSTONE HANDY SHALE HANDSTONE HEDROCK	0 15 30 42 130 165 355 550 685 775	15 30 42 130 165 355 540 685 775 855	DAMP © 165 WEEN & 180	
FELL  MANDY SHALE  MANDY ONE  SHALE  MANDY SHALE  MANDY SHALE  MANDY SHALE  MANDY SHALE  MANDY SHALE  MANDSTONE  MEDRICK  MANDSTONE  MEDRICK  MANDY SHALE	0 15 30 42 130 165 355 590 685 775 855	15 30 42 130 165 355 540 685 775 855 1005	DAMP © 165 WEEN & 180	
FEL GANDY SHALE SANDSTONE	0 15 30 42 130 165 355 590 685 775 855 1095	15 30 42 130 165 355 540 685 975 855 1005 1216 1330	DAMP © 165 WEEN & 180	
FILL FAMILY SHALE	0 15 30 42 136 165 355 590 685 775 855 1095 1210 1350	15 30 42 130 165 555 590 685 775 865 1308 1216 1360 1390	DAMP © 165 WEEN & 180	
EL ANDY SHALE ANDSTONE HALE ANDSTONE ANDY SHALE ANDSTONE ANDY SHALE COAL ANDY SHALE COAL ANDY SHALE COAL ANDSTONE EDROCK ANDY SHALE EDROCK ANDY SHALE EDROCK ANDY SHALE	0 15 30 42 130 165 355 590 685 775 835 1695 1210	15 30 42 130 165 355 540 685 975 855 1005 1216 1330	DAMP © 165 WEEN & 180	

7.7

BIG LIME

SHALE

SHALE

SQUAW SANDSTONE

WEIR SANDSTONE

BERRA SANDSTONE

GANTZ SANDSTONE

BAYARD SANDSTONE

SPEECHLEY A SANDSTONE

SPEECHLEY B SANDSTONS

BALLTOWN B SANDSTONE

SANDY SHALE

SHALE

ALUMANDER

SHALF

DUNSON SILTSTONE

IST ELK SILTSTONE

2ND ELK SAUSTONE

311D ELK SELTSTONE

STHIELK SILTSTONE

LOWER GANTZ SANDSTONE

### RECEIVED Office of Oil & Gas

FEB 1 1 2013

WV Department of Environmental Protection

## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	12/07/2012
API#:	47-033-05534

CATION: Elevation: 1174 GL	Quadrangle:	Mount Clare 7.	5'	
	`	<del></del>		
District: Grant Latitude: 2.854 Feet South of 39 De	County: Hai			<del></del>
	g. 12 Min			
	· B			
Company: Petroleum Development Corporation				
Address: 120 Genesis Boulevard	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Bridgeport, WV 26330	20"	27'	27'	Grout to Surface
Agent. Bob Williamson	13 3/8"	462'	462'	466
Inspector: Tristan Jenkins	9 5/8"	2709'	2709'	1109
Date Permit Issued: 05/12/2011	5 1/2"	13,830'	13,830'	3686
Date Well Work Commenced: 07/07/2011				
Date Well Work Completed: 10/08/2012				
Verbal Plugging: N/A	-			
Date Permission granted on:				
Rotary Cable Rig				an ansaire
Total Vertical Depth (ft): 7223'			RECE	IVED
Total Measured Depth (ft): 13,853'			Office of	Dil & Gas
Fresh Water Depth (ft.): 17', 142'			1AN 9.	9 2013
Salt Water Depth (ft.): 1410'				
Is coal being mined in area (N/Y)? N			WV Dena	ntment of
Coal Depths (ft.): None Reported			vironmen	tal Protecti
Void(s) encountered (N/Y) Depth(s) None		t		
		<u> </u>	<del> </del>	
Producing formation Marcellus Shale Producing formation Marcellus Shale	ations please inclu ry zone depth (ft)		ata on separate si	neet)
Gas: Initial open flow N/A MCF/d Oil: Initial open				
Final open flow 4,628 MCF/d Final open fl		ol/d		
Time of open flow between initial and final tests_	Hours			
Static rock Pressure 1500 psig (surface pressure)	after 72 Hou	rs		
Second producing formation Pay	zone depth (ft)			
Gas: Initial open flow MCF/d Oil: Initial open				
Final open flow MCF/d Final open fl		ol/d		
Time of open flow between initial and final tests_				
Static rock Pressurepsig (surface pressure)	afterHou	rs		

Signature 01/28/2013
Date

that the information is true, accurate, and complete.

Were Electrical, Mechanical or Geophysical lo	ngs recorded on this well? If der Directional GR from 2705' - 13,853'.	yes, please lis	SLB open hole LWD Ecoscope Image/GR/Dens/Neutron
NOTE: IN THE AREA BELOW PUT FRACTURING OR STIMULATING, PHY DETAILED GEOLOGICAL RECORD COAL ENCOUNTERED BY THE WELL!  Perforated Intervals, Fracturing, or Stimulating	YSICAL CHANGE, ETC. OF THE TOPS AND BO BORE FROM SURFACE	2). THE WEI OTTOMS OF	L LOG WHICH IS A SYSTEMATIC ALL FORMATIONS, INCLUDING
Perforated interval 8,241 ft – 13,760 ft			
48,000 bbls of Slickwater carrying 1,32 lb,300 lbs of 30/50 sand.	23,000 lbs of 100-mesh	sand, 5,151	,800 lbs of 40/70 sand, and
13,300 lbs 01 30/30 sand.			
			***************************************
Plug Back Details Including Plug Type and De	epth(s): N/A		
Formations Encountered: Surface:	Top Depth	1500	Bottom Depth
Surface: Little Lime	1476	1503	(All depths TVD except MD-TD)
Surface: Little Lime Big Lime	1476 1520	1698	(All depths TVD except MD-TD) Show Oil, Gas & Water @ 1573'.
Surface: .ittle Lime Big Lime Gantz	1476 1520 1982	1698 2013	(All depths TVD except MD-TD) Show Oil, Gas & Water @ 1573'.
Surface: Little Lime Big Lime Gantz Fifty Foot	1476 1520 1982 2050	1698 2013 2101	(All depths TVD except MD-TD) Show Oil, Gas & Water @ 1573'.
Surface: Little Lime Big Lime Gantz Fifty Foot Gordon Stray	1476 1520 1982 2050 2149	1698 2013 2101 2171	(All depths TVD except MD-TD) Show Oil, Gas & Water @ 1573'.
Surface: Little Lime Big Lime Gantz Fifty Foot Gordon Stray  Ith SS	1476 1520 1982 2050 2149 2280	1698 2013 2101 2171 2342	(All depths TVD except MD-TD) Show Oil, Gas & Water @ 1573'.  PECEIVED Office of Oil & Gas  JAN 2 9 2013
Surface: Little Lime Big Lime Gantz Fifty Foot Gordon Stray Ath SS 5th Sand	1476 1520 1982 2050 2149 2280 2356	1698 2013 2101 2171 2342 2383	(All depths TVD except MD-TD) Show Oil, Gas & Water @ 1573'.  PECEIVED Office of Oil & Gas  JAN 2 9 2013  WV Department of
Surface:  Little Lime  Big Lime  Gantz  Fifty Foot  Gordon Stray  Ith SS  Sth Sand  Bayard	1476 1520 1982 2050 2149 2280 2356 2468	1698 2013 2101 2171 2342 2383 2489	(All depths TVD except MD-TD) Show Oil, Gas & Water @ 1573'.  PECEIVED Office of Oil & Gas  JAN 2 9 2013  WV Department of
Surface: Little Lime Big Lime Gantz Fifty Foot Gordon Stray Ath SS 5th Sand Bayard Benson	1476 1520 1982 2050 2149 2280 2356 2468 4459	1698 2013 2101 2171 2342 2383 2489 4505	(All depths TVD except MD-TD) Show Oil, Gas & Water @ 1573'.  RECEIVED Office of Oil & Gas  JAN 2 9 2013  WV Department of Environmental Protection
Surface: Little Lime Big Lime Gantz Fifty Foot Gordon Stray Ath SS 5th Sand Bayard Benson **All Depths shown above are from t	1476 1520 1982 2050 2149 2280 2356 2468 4459 the pilot hole log well# 4	1698 2013 2101 2171 2342 2383 2489 4505	(All depths TVD except MD-TD) Show Oil, Gas & Water @ 1573'.  RECEIVED Office of Oil & Gas  JAN 2 9 2013  WV Department of Environmental Protection
Surface: Little Lime Big Lime Gantz Fifty Foot Gordon Stray Ath SS 5th Sand Bayard Benson	1476 1520 1982 2050 2149 2280 2356 2468 4459	1698 2013 2101 2171 2342 2383 2489 4505	(All depths TVD except MD-TD) Show Oil, Gas & Water @ 1573'.  RECEIVED Office of Oil & Gas  JAN 2 9 2013  WV Department of Environmental Protection

# State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	12/07/2012	
API #:	47-033-05556	

Farm name: Hudkins, R.D.	Operator Well	No.: Hudkins 3	łM	
LOCATION: Elevation: 1174 GL	Quadrangle:	Mount Clare 7.5		
District: Grant  Latitude: 2.867 Feet South of 39 Deg.  Longitude 5.137 Feet West of 80 Deg.	County: Harr 12 Min. 20 Min.	30 Sec.		·
Company: Petroleum Development Corporation		Used in	Left in well	I G ("!!
Address: 120 Genesis Boulevard	Casing & Tubing	drilling	Left in Well	Cement fill up Cu. Ft.
Bridgeport, WV 26330	20"	27'	27'	Grout to Surface
Agent: Bob Williamson	13 3/8"	462'	462'	466
Inspector: Tristan Jenkins	9 5/8"	2768'	2768'	1135
Date Permit Issued: 06/15/2011	5 1/2"	13,934'	13,934'	3671
Date Well Work Commenced: 07/12/2011				
Date Well Work Completed: 10/09/2012				
Verbal Plugging: N/A				
Date Permission granted on:				
Rotary Cable Rig				
Total Vertical Depth (ft): 7212'				
Total Measured Depth (ft): 13,959'				
Fresh Water Depth (ft.): 17', 142'				
Salt Water Depth (ft.): 1410'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): None Reported				
Void(s) encountered (N/Y) Depth(s) None				
OPEN FLOW DATA (If more than two producing formation Producing formation Marcellus Shale Pay z  Gas: Initial open flow N/A MCF/d Oil: Initial open flow Final open flow 5013 MCF/d Final open flow Time of open flow between initial and final tests 72  Static rock Pressure 1550 psig (surface pressure) after the producing formation open flow between initial and final tests 72.	cone depth (ft) 2  cow Bb  Bb  0 Hours	7197' N/d I/d	ta on separate si RECE Office of (	IVED
Second producing formation Pay zon	ne denth (ft)		JAN 2	9 2013
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d  Final open flow MCF/d Final open flow Bbl/d  Time of open flow between initial and final tests Hours  Static rock Pressure psig (surface pressure) after Hours				
I certify under penalty of law that I have personally examined all the attachments and that, based on my inquiry of those individual that the information is true, accurate and complete.				
Signature	٠		7/2012 Date	

Were core samples taken? Yes }	No_XX Were o	cuttings caught	during drilling? Yes_XX_No
Were Electrical, Mechanical or Geophysic		versitence list	Sonic Scanner/CBL/GR/CCI from 13744'-5450',
OH Mud Log from 6100'- 13,959'. Weatherford OH Photo	Dens/Comp Neu/Dual Laterlog/Comp Sonic li	om 7380' - Syriace (I	Pilot Log). Baker Directional GR from 2790' - 13,960'.
NOTE: IN THE AREA BELOW FRACTURING OR STIMULATING, DETAILED GEOLOGICAL RECOI COAL ENCOUNTERED BY THE WI	PHYSICAL CHANGE, ETC. RD OF THE TOPS AND BO	2). THE WEL TTOMS OF	L LOG WHICH IS A SYSTEMATIC ALL FORMATIONS, INCLUDING
Perforated Intervals, Fracturing, or Stimu	lating:		
Perforated interval 7,755 ft - 13,8	70 ft (4600 shots). Frac'd 1	5 stages us	ing 357 bbls 15% HCL, and
156,100 bbls of Slickwater carrying	1,473,400 lbs of 100-mesl	n sand, 5,39	7,500 lbs of 40/70 sand, and
17,000 lbs of 30/50 sand.			
Plug Back Details Including Plug Type ar	nd Depth(s): N/A		
Formations Encountered: Surface:	Top Depth	. 1	Bottom Depth
Little Lime	1476	1503	(All depths TVD except MD-TD)
Big Lime	1520	1698	( )
Gantz	1982	2013	
Fifty Foot	2050	2101	
Gordon Stray	2149	2171	RECEIVED
4th SS	2280	2342	Office of Oil & Gas
5th Sand	2356	2383	
Bayard	2468	2489	JAN 2 9 2013
Benson	4459	4505	MAY Department of
Sycamore	6290	6370	
Tully LS	6956	7020	Environmental Flotebill
Marcellus Shale	7164	7238	
Tioga Ash	7238	7245	
Onondaga LS	7245	7255	
Huntersville Chert	7255	13,959	MD-TD

DATE: **April 28, 2011** API #: **47-041-05650** 

### State of West Virginia Department of Environmental Protection Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: <u>David &amp; Barbara Beerbroer</u>	Operator V	Vell No: <u>Be</u>	erbroer #1	Acres 15.79			
LOCATION: Elevation: 1231' Quadrangle: We	eston 7.5'						
District: <u>Hackers Creek</u> County: <u>Lewis</u>							
	le: 39 07' 30" ude: 80 22' 00'	,					
Company: Mike Ross Inc.	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.			
Address: Po Box 219							
Coalton WV 26257							
Agent: Mike Ross	11 3/4	40	40'	Pulled			
Inspector: Bryan Harris	8 5/8	1160	1160	315 sacks			
Date Permit Issued: 03/22/11				•			
Date Well Work Commenced: 4/8/11	4 1/2		6010	700 sacks			
Date Well Work Completed: 4/13/11				<del></del>			
Verbal Plugging:		<del> </del>	<del></del>				
Date Permission granted on:							
Rotary X Cable Rig	<u> </u>			<del></del>			
Total Depth (feet): 6667							
Fresh Water Depth (ft.): 0			1				
Salt Water Depth (ft.): 0							
Is coal being mined in area (N/Y)? N			† · · · · · · · · · · · · · · · · · · ·				
Coal Depths (ft.):							
OPEN FLOW DATA  Producing formation: Successor Cuit F	)	D D-114	·	SML Carel			
Producing formation: Sycamore Grit, E	ik, Alexander,	Benson, Balit	own, Bayard, F	ittn Sand			
Pay zone depth: 5620-2140 (ft) Gas: Initial open flow 60 MCF/d	7:1, Tm:4:=1	Fl 1	Bbl/d				
Gas: Initial open flow <u>60</u> MCF/d (Final open flow <u>360 MCF/d</u> )							
Time of open flow between initial and	•		a Iours				
Static rock Pressure 630 psig (surfac							
Static rock rressure <u>usu</u> psig (surface	e pressure) are	ei <u>12</u> no	ouis				
Second producing formation							
Gas: Initial open flowMCF/d Oil: In							
Final open flowMCF/d Fin							
Time of open flow between initial and							
Static rock Pressurepsig (surface p	ressure) after	Hours					
Static rock Pressurepsig (surface pressure) afterHours  NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.							

By: Mike Ross

Signed:

Date: January 31, 2013

Date of Frac.: April 26, 2011 Well Name: Beerbroer #1

1<sup>st</sup> Stage - Perfs from **5950-5624**, Holes 14, Acid **750** Gals., Bbls water or foam **500**, 80/100 sand **100** sacks, 20/40 sand **304** sacks, N2 **59,000** SCF, ISP **1775**#.

 $2^{nd}$  Stage - Perfs from **4836-4808**, Holes **16**, Acid **500** Gals., Bbls water or foam **450**, 80/100 sand **80** sacks, 20/40 sand **275** sacks, N2 **60,000** SCF, ISP **900#**.

3<sup>rd</sup> Stage - Perfs from **4270-4262**, Holes **14**, Acid **500** Gals., Bbls water or foam **504**, 80/100 sand **90** sacks, 20/40 sand **300** sacks, N2 **61,000** SCF, ISP

4<sup>th</sup> Stage - Perfs from **3190-3108**, Holes **14**, Acid **750** Gals., Bbls water or foam **320**, 80/100 sand **298** sacks, 20/40 sand sacks, N2 **68,000** SCF, ISP **764**.

### <u>Directions</u>: 2 miles south of Jane Lew. Right up driveway by red trailer bear right to location on hill.

#### Details:

Clay	0	-	50
Sand & Shale	50	-	200
Red Rock & Lime	200	-	350
Sand & Shale	350	-	700
Red Rock & Sand	700	-	1330
Blue Monday Sand	1330	-	1360
Shale	1360	-	1400
Big Lime	1400	-	1500
Big Injun Sand	1500	-	1600
Sand & Shale	1600	-	1850
Gordon Sand	1850	-	1900
Sand & Shale	1900	-	2050
Forth Sand	2050	-	2070
Sandy Shale	2070	-	2090
Fifth Sand	2090	-	2160 Show Gas
Sandy Shale	2160	-	2280
Bayard Sand	2280	-	2290
Sandy Shale	2290	-	3090
Balltown Stringers	3090	-	3200 Show Gas
Sandy Shale	3200	-	4240
Benson Sand	4240	-	4260 Show Gas
Sandy Shale	4260	-	4600
Alexander Sand	4600	-	4630
Sandy Shale	4630	-	5590
Elk Sand	5590	_	5610 Show Gas
Sandy Shale	5610	-	5940
Sycamore Grit	5940	-	5950 Show Gas
Sandy Shale	5950	-	6067 TD
•			

DATE: May 11, 2011 API #: 47-083-01221

### State of West Virginia Department of Environmental Protection Office of Oil and Gas

#### Well Operator's Report of Well Work

Farm name: Gary E. Thomason Operator Well No: Thomason #2 Acres 140					
LOCATION: Elevation: 2,105' Quadrangle: Ca	ssidy 7.5'				
District: <u>Middle Fork</u> County:	Randolph				
Latitude: 10,530' Latitude:	38 50° 00°				
Longitude: 2.380 Longitude:	80 02' 30"	1			
Community Days Van	Casing &	Used in	Left in well	Cement fill	
Company: Mike Ross Inc.	Tubing	drilling		up Cu. Ft.	
Address: Po Box 219  Coalton WV 26257					
Agent: Mike Ross	11 ¾	114	114	100 sacks	
Inspector: Bill Hatfield	8 5/8	807	807	300 sacks	
Date Permit Issued: 06/09/10	0 5/0	007	007	. DOO BUUL	
Date Well Work Commenced: 5/1/11	5 1/2		6968	435 sacks	
Date Well Work Completed: 5/5/11					
Verbal Plugging:					
Date Permission granted on:					
Rotary X Cable Rig					
Total Depth (feet): 6970					
Fresh Water Depth (ft.): 80					
				<u> </u>	
Salt Water Depth (ft.): 0					
Is coal being mined in area (N/Y)? N					
Coal Depths (ft.):		l		1	
OPEN FLOW DATA					
Producing formation: Marcellus Shale	<b>.</b>				
Pay zone depth: 6940-6890 (ft)	3				
Gas: Initial open flow 10 MCF/d	oil: Initial ope	n flow B	bl/d		
Final open flow 220 MCF/d H					
Time of open flow between initial and			ours		
Static rock Pressure 2000 psig (surfa	ce pressure) a	fter <u>72</u> H	ours		
Second producing formation	Pay zone dept	h (ft)			
Gas: Initial open flowMCF/d Oil: In	nitial open flor	wBbl/d			
Final open flow MCF/d Fin	al open flow	Bbl/d			
Time of open flow between initial and	final tests	Hours			
Static rock Pressurepsig (surface p	oressure) after	Hours			
NOTE: ON BACK OF THIS FORM PUT THE FO	OLLOWING: 1	). DETAILS OF	PERFORATEI	•	
INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.2). THE WELL					
LOG WHICH IS A SYSTEMATIC DETAILED O	GEOLOGICAL	RECORD OF A	LL FORMATION	ONS,	
INCLUDING COAL ENCOUNTERED BY THE	WELLBORE.				
Signed:	DIS				

By: Mike Ross

Date: January 31, 2013

Date of Frac.: 06/24/11 Well Name: Thomason #2

1<sup>st</sup> Stage - Perfs from **6892-6942**, Holes **120**, Acid **1500** Gals., Bbls water or foam **12,300**, 80/100 sand **1964** sacks, 20/40 sand **6,000** sacks, N2 SCF, ISP **3700**.

2 <sup>nd</sup> Stage - Perfs from , 80/100 sand	to , Holes sacks, 20/40 sand	, Acid sacks, N2	Gals., Bbls water or foam SCF, ISP .
3 <sup>rd</sup> Stage - Perfs from , 80/100 sand	to , Holes sacks, 20/40 sand	, Acid sacks, N2	Gals., Bbls water or foam SCF, ISP .
4 <sup>th</sup> Stage - Perfs from , 80/100 sand	to , Holes sacks, 20/40 sand	, Acid sacks, N2	Gals., Bbls water or foam SCF, ISP .

### <u>Directions</u>: Cassity Long Run Road before mine at markers 16+ left follow to location at Eng. New Road

#### Details:

•				
Sand & Shale	0	-	200	
Red Rock & Sand	200	-	480	
Sand & Shale	480	-	700	
Big Lime	700	-	800	
Injun Sand	800	-	900	
Sand & Shale	900	-	1500	
Fourth Sand	1500	-	1600	
Sandy Shale	1600	-	1650	
Fifth Sand	1650	-	1700	
Sandy Shale	1700	-	3670	
Benson Sand	3670	-	3690	
Sandy Shale	3690	-	4470	
Elk Sand	4470	-	4480	
Sandy Shale	4480	-	6850	
Marcellus Shale	6850	-	6950	
Onadogoa	6950	-	6970	TD

WR-35 Rev (9-11)

# State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

DATE:	12/6/2011
API #:	47-085-09916

name: Loren & Michele Bartlett	Operator We	II No.: W-1623	-	
ATION: Elevation: 860'	Quadrangle:	Harrisville	and the arrows of the original by a security to the	
District: Murphy	County: Ritch	nie		
Latitude: 10770 Feet South of 39 De				
Longitude 2730 Feet West of 81 D	eg. 02 Mir	. <u>30</u> Sc	c.	
Company: Haught Energy Corporation				
Address: HC 68 Box 14	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Smithville, WV 26178	13-3/8"	21'	21'	
Agent: Warren R. Haught	9-5/8"	340'	340'	To Surface
Inspector: David Cowan	7"	1820'	1820'	To Surface
Date Permit Issued: December 14, 2010	4-1/2"	5613'	5613'	3683' (135 Sks)
Date Well Work Commenced: 2/22/2011				
Date Well Work Completed: 08/21/2011				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig 🗸				
Total Vertical Depth (ft): 5,630'				
Total Measured Depth (ft): 5,633'				
Fresh Water Depth (ft.): 110'				
Salt Water Depth (ft.): 520'				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): None				
Void(s) encountered (N/Y) Depth(s) None				
PEN FLOW DATA (If more than two producing forms Producing formation Benson Page 1997)	ay zone depth (ft)	4300'	lata on separate s	heet)
Gas: Initial open flow show MCF/d Oil: Initial open final open flow MCF/d Final open f		bl/d ol/d	RECE	IVFN
Time of open flow between initial and final tests 1			Office of (	
Static rock Pressure 750 psig (surface pressure				on a dao
	zone depth (ft) 545	60' - 5600'	FEB 1	3·20 <b>13</b>
Gas: Initial open flow show MCF/d Oil: Initial open		bi/d	WV Depai	tment of
Final open flow 75 MCF/d Final open f Time of open flow between initial and final tests 1	***************************************	Env	/irnnments	Protection
Static rock Pressure 750 psig (surface pressure			Or in the control	ar i rotoctio

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Wurner R. Daught Signature

/2/5/// Date

Were core samples taken? YesNo_X	Were cuttings caught during drilling? YesNo_X
Were Electrical, Mechanical or Geophysical logs reco	rded on this well? If yes, please list Gamma Ray, Neutron, Density, Induction, Temp., Audio
FRACTURING OR STIMULATING, PHYSICAL DETAILED GEOLOGICAL RECORD OF THE COAL ENCOUNTERED BY THE WELLBORE I	FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC E TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING ROM SURFACE TO TOTAL DEPTH.
Perforated Intervals, Fracturing, or Stimulating:	
Perforated by Timco Wireline Services 5/12/	
Perforations at: 3800'-4025'; 4304' - 4630';	5450' - 5592'
Fractured by Universal Well Services 05/13/	2011
3 Stage Nitrogen Frac totaling 1,950,000 cut	pic feet
Plug Back Details Including Plug Type and Depth(s):	
Formations Encountered: Surface:	Top Depth / Bottom Depth
See attached worksheet	
	RECEIVED
	Office of Oil & Gas
	FEB 1 3 2013
	WV Department of Environmental Protection

### McNeil W-1623 API # 47-085-09916

Formation	Тор	Bottom	Remarks
Red Rock & Shale	0	410	
Sand	410	436	
Red Rock	436	510	
Sand	510	534	
Red Rock	534	602	
Slate	602	778	
Dunkard Sand	778	796	
Slate & Shells	796	1010	
Gas Sand	1010	1102	
Slate	1102	1170	
Ist Salt Sand	1170	1240	
Shale	1240	1272	
2nd Salt Sand	1272	1298	
Shale	1298	1354	
3rd Salt Sand	1354	1468	
Slate	1468	1572	
Maxon Sand	1572	1612	
Shale	1612	1698	
ittle lime	1698 ·	1716	
Pencil Cave	1716	1729	<u> </u>
Big Lime	1729	1867	Gas Smell
Big Injun Sand	1867	1914	at 1880'
Slate Break	1914	1930	
Squaw Sand	1930	1940	
Slate & Shells	2180	2510	
Coffee Shale	2247	2280	
Slate & Shells	2280	2385	
Sand	2385	2406	
Slate & Shells	2406	2664	REGEIVED
Gordon	2664	2671	Office of Oil & Gas
Slate & Shells	2671	4578	EED 1 0 2012
Benson Sand	4311 .	4340	FEB 1 8 2013
Slate & Shells	4340	4886	1001 Statement of
Alexander Sand	4886	4902	WV Department of
Slate & Shells	4902	5289	Environmental Protection
Sand	5289	5300	
Slate & Shells	5300	5450	
Hamilton Shale	5450	5485	
Slate & Shells	5485	5560	
Devonian Shale	5560	5604	
SOFTIMI CITALO	5630	<del></del>	

WR-35 Rev (9-11)

Date:

## State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Penort of Well Work

DATE: 06-Aug-2012 API #: 47-085-09993

Well Operator's Report of Well Work Farm name: Margaret Kirby, Etal Operator Well No.: Kirby Etal #1 LOCATION: Elevation: 1149' Quadrangle: Smithville 7.5' District: Murphy Ritchie County: Feet South of 39 Sec. Latitude: 1834 Deg. 02 Min 30 Longitude 3715 Feet West of 81 Deg. 02 \_\_Min 30 Sec. Company: Murvin & Meier Oil Co. Casing & Used in Left in well Cement fill **Tubing** drilling up Cu. Ft. Address: P. O. Box 396 Olney, Illinois 62450 P. Nathan Bowles, Jr. Agent: Inspector: Mr. David Cowan 11 3/4" 210.6 210.6 156.9 Date Permit Issued: 08/06/2012 Date Well Work Commenced: 10/08/2012 8 5/8" 1398.8 1398.8 462.0 Date Well Work Completed: 12/20/2012 Verbal Plugging: 4 1/2" 6324.8 6324.8 823.9 Date Permission granted on: Rotary Cable Rig Total Vertical Depth (ft): 6348' Total Measured Depth (ft): 6348' Fresh Water Depth (ft.): 50', 992' Salt Water Depth (ft.): 2040' Is coal being mined in area (N/Y)? N Coal Depths (ft.): None Void(s) encounter (N/Y) Depth(s) N OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet) Producing formation 2<sup>nd</sup> Elk, Lower Rhinestreet Pay zone depth (ft) 5680' to 6270' Gas: Initial open flow show MCF/d Oil: Initial open flow - Bbl/d Final open flow 100 MCF/d Final open flow show Bbl/d Time of open flow between initial and final tests 24 Hours Static rock Pressure 1450 psig (surface pressure) after 72 Hours Second producing formation Bradford, Benson, Alexander Pay zone depth (ft) 4591' to 5172' Gas: Initial open flow show MCF/d Oil: Initial open flow - Bbl/d Final open flow 100 MCF/d Final open flow show Bbl/d Time of open flow between initial and final tests 24 Hours Static rock Pressure 1450 psig (surface pressure) after 72 Hours I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all of the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete. Exec. Vice-Pres. By:\_\_\_\_

Were core samples taken?	Yes	NoX	Were cuttings caught during drilling?	Yes_X_	No
			······································	· ••	

### Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list:

Photo Density, Compensated Neutron Array Induction

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

#### Perforated Intervals, Fracturing, or Stimulating:

6158' to 6270': 1500 gals 15%, 756 bbls, 80 MSCF Nitrogen, 5000 lbs 80/100, 24,500 lbs 20/40

5680' to 5736': 500 gals 15%, 290 bbls, 659 MSCF Nitrogen, 25,000 lbs 20/40

4900' to 5172': 500 gals 15%, 700 MSCF Nitrogen 4591' to 4623': 500 gals 15%, 700 MSCF Nitrogen

#### Plug Back Details Including Plug Type and Depth(s):

Formations Encountered	Top Depth	<b>Bottom Depth</b>
Fill	0	4
Shale/Sand	4	100
Sand	100	120
Sand/Shale/Red Rock	120	222
Sand/Shale	222	1940
Maxon	1940	2000
Shale/Sand	2000	2071
Big Lime	2071	2150
Big Injun	2150	2245
Sand/Shale	2245	2427
Weir	2427	2480
Sand/Shale	2480	2555
Berea	2555	2600
Sand/Shale	2600	2760
Gordon	2760	2800
Sand/Shale	2800	3530
Warren	3530	3620
Sand/Shale	3620	4125
Speechly	4125	4190
Sand/Shale	4190	4250
Balltown	4250	4500
Sand/Shale	4500	4540
Bradford	4540	4620

Sand/Shale	4620	4730
Riley	4730	4760
Sand/Shale	4760	4875
Benson	4875	4890
Sand/Shale	4890	5030
Alexander	5030	5165
Sand/Shale	5165	5435
1st Elk	5435	5490
Sand/Shale	5490	5650
2nd Elk	5650	5675
Sand/Shale	5675	5875
Rhinestreet	5875	6015
Sand/Shale	6015	6336
Lime	6336	6348

Total Depth

6348

....

WR-35 Rev (9-11)

Farm name: Mayle, Bernard & Doris

# State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work

Operator Well No.: Mayle 1

DATE:	02/06/2013	
API #:	47-091-00897	F

ATION: Elevation: 1380'	_ Quadrangle: _	Grafton 7.5'		<del></del>
District: Knottsville	County: Tay	lor		
Latitude: 1,440 Feet South of 39 Deg.	17Min	. <u>30</u> Sec.		
Longitude 2.050 Feet West of 80 Deg.	Min.	Sec.		
Company: Petroleum Development Corporation				
Company: Petroleum Development Corporation	Casing &	Used in	Left in well	Cement fill
Address: 120 Genesis Boulevard	Tubing &	drilling	Left iii weii	up Cu. Ft.
Bridgeport, WV 26330	11 3/4"	25'	25'	Sanded In
Agent: Bob Williamson	8 5/8"	1021'	1021'	333
Inspector: Joe McCourt	4 1/2"	5147'	5147'	845
Date Permit Issued: 04/28/2009				
Date Well Work Commenced: 09/09/2009				
Date Well Work Completed: 09/22/2009				
Verbal Plugging:				
Date Permission granted on:				
Rotary Cable Rig 🗸			CEIVED	
Total Vertical Depth (ft): 5212'		Office	of Oil & G	as
Total Measured Depth (ft): 5212'		FF	B 1 4 2013	
Fresh Water Depth (ft.): 292'		1	D 1 1 2010	
Salt Water Depth (ft.): N/A		WV D	epartment	of
Is coal being mined in area (N/Y)? N			ental Prot	
Coal Depths (ft.): 60'-62'				
Void(s) encountered (N/Y) Depth(s) N				
PEN FLOW DATA (If more than two producing formation Producing formation Speechley, Fifth Sand (commingled) Pay Gas: Initial open flow 237 MCF/d Oil: Initial open flow MCF/d Final open flow Time of open flow between initial and final tests Static rock Pressure NT psig (surface pressure) a	zonc depth (ft)_ flowB wBb 6Hours	2745', 230 <u>5</u> bl/d bl/d	ita on separate si	neet)
<del>- 11.1</del>				
Second producing formation Pay zo Gas: Initial open flow MCF/d Oil: Initial open flow Final open flow MCF/d Final open flow Time of open flow between initial and final tests	flowB wBt Hours	bl/d bl/d s		
Second producing formation Pay zo Gas: Initial open flow MCF/d Oil: Initial open flow MCF/d Final open flow	flowB wBt Hours	bl/d bl/d s		
Second producing formation Pay zo Gas: Initial open flow MCF/d Oil: Initial open flow Final open flow MCF/d Final open flow Time of open flow between initial and final tests	flow B  w Bl  Hours  fter Hou	bl/d bl/d rs r with the inform	nation submitted e for obtaining t	l on this document a he information I bel
Second producing formation Pay zo Gas: Initial open flow MCF/d Oil: Initial open flow Time of open flow between initial and final tests Static rock Pressure psig (surface pressure) a rtify under penalty of law that I have personally examined ne attachments and that, based on my inquiry of those indi	flow B  w Bl  Hours  fter Hou	bl/d bl/d s rs r with the infornately responsibl	nation submitted e for obtaining t	I on this document a he information I bel

Were core samples taken? YesNo_XX	_ Were	cuttings caught d	aring drilling? Yes	No_XX
Were Electrical, Mechanical or Geophysical logs r Hotwell GR/CCL from 2560'-2080'.	recorded on this well? I	f yes, please list <u></u>	lotwell GR/CCL from	2904'-2088'.
NOTE: IN THE AREA BELOW PUT TO FRACTURING OR STIMULATING, PHYSIC DETAILED GEOLOGICAL RECORD OF COAL ENCOUNTERED BY THE WELLBON	CAL CHANGE, ETC. THE TOPS AND BO	2). THE WELL OTTOMS OF A	LOG WHICH IS A S	SYSTEMATIC
Perforated Intervals, Fracturing, or Stimulating:				
09/09/2009: MIRU BJ & Hotwell & set comp BP	@2800'.Pump acid, fill	hole, & press te	st csg to 3500 psi. Pe	rf Spchly from
2741-2749 & pump 85 bbls of 15 Q N2 assist Sli	ickwater pre-pad follow	ved by 37 bbls of	25 Q N2 assist X-link	. Then went to
1 ppg sand & pumped 36 bbls of slurry (1880	bbls of 20/40 sand). F	Fluid was not cre	oss linking.Cut sand	& flushed with
38 bbls gel water. RDMO. 9/22/2009: MIRU Hotw	ell wireline & ran correl	log. Set solid co	mp plug @ 2350' & pe	rf the 5th Sand
from 2301-2310. Frac 5th Sand (stage 2) with 20	) quality N2 assist Delta	a X-Link, 29,847	lbs of 20/40 brown sar	nd and 59,602
scf N2 (ATP 2662 psig, MTP 4515 psig) (Avg Rates 15.7	7 bpm; 2721 scfm).Flusher	d with 29 bbls and	11 scf N2. Did not get Sar	nd totally flushed.
Plug Back Details Including Plug Type and Depth	(s):			
Formations Encountered:	Top Depth	/	Bottom	Depth
Surface:				
See original submitted Well Log for this v	vell API# 47-091-00	)897.		
				···
			***************************************	

27001 27021

# State of West Virginia Division of Environmental Protection Section of Oil and Gas Well Operator's Report of Well Work

Farm name:

NICE, KENNETH DALE JR.

Operator Well No.: J.Q. MCINTYRE 12

LOCATION:

Elevation:

841'

Quadrangle: CENTERPOINT 7.5'

District:

**MCELROY** 

County: TYLER

Latitude:

6,665 Feet south of

County: ITLER

e 60

39 Deg 27 Min 30 Sec.

Longitude: 5,510 Feet west of

80 Deg 40 Min 0

O Sec.

Company Address:	HG Energy PO Box 551 Vienna, W		Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector:	Joe Ta	aylor				
Date Permit Is	ssued: 07	7/12/2012	1			
Date Well Wo	rk Commenced:	08/20/2012				
Date Well Wo	rk Completed:	08/31/2012				
Verbal Pluggii	ng:		1 1			
Date Permission	on Granted On:					
Rotary X	Cable R	lig	7"	830'	830'	215 sks
Total vertical	Depth (ft):	2960'	7 1			
Total Measure	d Depth (ft):					010.1
Fresh Water D	epth (ft):	100',180'	4 1/2"	2867'	2867'	210 sks to
Salt Water Dep	pth (ft):	1340'				surface
Is Coal being r	mined in ares (Y/N)?	No				
Coal Depths (f	ft): x 6	35'-644'		i	·	
Void(s) encour	ntered (Y/N) depth(s) NONE	:				•

OPEN FLOW DATA
----------------

\* Waterflood Producer

Produc	ing formation	Gord	lon ·	Pay zone d	lenth (ft)	2737'-2739'
	Initial open flow	*	MCF/d Oil: I	nitial open flor	W	* Bbl/d
	Final open flow	*		Final open flow		* Bbl/d
	Time of open flow	between initia			* Hou	rs
Static 1	rock pressure	*	_psig (surface )	pressure)	after	* Hours
Second	producing formation			Pay zone d	lepth (ft)	
Gas:	Initial open flow		MCF/d Oil: I	nitial open flow	x ๋	Bbl/d
	Final open flow			inal open flow		Bbl/d
	Time of open flow	between initia	Tand final tests	;	Hou	rs
Static 1	ock pressure		_psig (surface 1	pressure)	after	Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Kled

11/19/12

	•	*.					•	
	•			And Law Agency an				
		0	Νo		We	re cuttings	caught during drilli	ng? No
Were	core samp	les taken?	No					
Were STIN THE	Y Y/N - NOTE: IN (ULATING, ) TOPS AND	Electrical,  THE AREA BELO PHYSICAL CHA BOTTOMS OF A	N Y/N OW PUT THE ! NGE, ETC. 2). ALL FORMATIO	Mechanical,	DETA	Y/N ILS OF PERI	Geophysical logs rec FORATED INTERVALS EMATIC DETAILED GI ERED BY THE WELLB	
	tment :	mus atod worth			2717	'.5'-2718.5'	, & 2737'-2739' w/ 2	2500 gals 15% HCL aci
Wel	l Log:	All depths a	are measured	l relative to KE	3 (8' <i>A</i>	AGL).		
		# e* : <b>4</b>				CD 5		
	,	Shale w/ sa	ınd streaks	0	-	635 644		
		Coal		635	-	1056		<b>.</b> ₹
		Shale w/ sa	and streaks	644	-	1072		***
		Sand		1056	-	1072		
		shale		1072 1088	_	1123		
		sand		1123	-	1198	•	•
		shale		1123	_	1217		
		sand		1217	_	1240		•
		shale		1240	-	1257		
		sand		1257	_	1290		•
•	•	shale		1290	-	1306		
	•	sand		1306	-	1340		
		shale		1340	-	1381		
		sand	4	1381	-	1527		
	•	shale		1527	-	1546		L
		sand shale		1546	-	1640		•
		snate		1640	•	1668		•
		Salid		1668	-	1845		

KB

shale

sand

shale

sand

Big Lime

Big Injun

Gordon stray

shale

shale

shale

sand

shale

T.D. -Logger

TD

Gordon

DATE: May 11, 2011 API #: 47-097-03789

## State of West Virginia Department of Environmental Protection Office of Oil and Gas

### Well Operator's Report of Well Work

Farm name: Mike Ross, Inc Operator Well No: Wilma Goodwin #1 Acres 58.36							
LOCATION:	Elevation:	<u>1,381'</u>	Quadrangle: Be	rlin 7.5'			
	District:	<u>Buckha</u>	annon County:	<u>Upshur</u>			
	Latitude:	<u>4,600</u>		02'30"			
	Longitude:	<u>7,250</u>	Longitude: 80		1		
Company: Mil				Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
	Box 219						
	alton WV	26257					
<u> </u>	ke Ross			11 %	42	42	Sand In
Inspector: B				8 5/8	1,369	1,369	300 sacks
Date Permit Issu							
Date Well Work			1 .	4 1/2		4,868	580 sacks
Date Well Work		4/25/11					-
Verbal Plugging			-				
Date Permission			<del></del>				
Rotary X	<del></del>	R	ig		ļ		
Total Depth (fe			· · · · · · · · · · · · · · · · · · ·				
Fresh Water De	opth (ft.): 16	0		<del></del>			
	1-(0)						
Salt Water Dep	th (tt.): 0						
	1.0	TABORT					
Is coal being mir		N/Y)? N					
Coal Depths (ft.)	:				į.	l	l
OPEN FLOW D	ΔΤΔ						-
	*	tion: A	lexander, Bens	ean Ralltown	Fifth Sand		
	one depth:			SOME DAMEOUVE	A IIII Dana		
•	-		<u>40</u> MCF/d C	hil: Initial one	n flow B	hl/d	
Gas.			320 MCF/d F				
Ti			een initial and f			ours	
	•						
~ Static	rock Press	ure <u>oo</u>	psig (surface	e pressure) art	er <u>12</u> no	urs	
8		·	_ ,	Dari wana dané	L (A)		
Second j	producing i	ormano	n] _MCF/d Oil: Ir	ray zone dept	w Bbl/d		
Gas, mi	iai open no	,w	_MCE/d OII: II	illiai opeli ilo	wBbl/d Bbl/d		
rinai	open now		MCF/d Fin	ai open now _			
Lime	or open no	w between	een initial and f	inai tests	Hours		
Static rock Pressurepsig (surface pressure) afterHours							
NOTE: ON I	BACK OF T	HIS FOR	M PUT THE FO	DLLOWING: 1)	). DETAILS OF	PERFORATEI	)
INTERVAL	S, FRACTU	RING OI	RSTIMULATIN	G, PHYSICAL	CHANGE, ET	C.2). THE WEL	L
			C DETAILED G		RECORD OF A	LL FORMATION	JNS,
INCLUDING	i COAL EN	COUNT	ERED BY THE	WEALBORE.			
Sigr	ned:	The	The 1	Koss	- 		
200		14" B					
•	•	Mike Ro Januar	ss y 31, 2013				

Date of Frac.: 05/05/11 Well Name: Wilma Goodwin #1

1<sup>st</sup> Stage - Perfs from 4778 to 4786, Holes 14, Acid 750 Gals., Bbls water or foam 400, 80/100 sand 75 sacks, 20/40 sand 308 sacks, N2 64,115 SCF, ISP 1571#.

2<sup>nd</sup> Stage - Perfs from **4394** to **4384**, Holes **16**, Acid **500** Gals., Bbls water or foam **515**, 80/100 sand **100** sacks, 20/40 sand **302** sacks, N2 **61,752** SCF, ISP **1117**#.

 $3^{rd}$  Stage - Perfs from 2878 to 3279, Holes 14, Acid 500 Gals., Bbls water or foam 500, 80/100 sand 50 sacks, 20/40 sand 300 sacks, N2 54,873 SCF, ISP 922#.

4<sup>th</sup> Stage - Perfs from **2504** to **2512**, Holes **16**, Acid **500** Gals., Bbls water or foam **410**, 80/100 sand sacks, 20/40 sand **318** sacks, N2 **55,931** SCF, ISP **1522**#.

### **Directions**:

#### Details:

Red Rock & Shale	0	-	100	
Sand & Shale	100	-	250	
Red Rock & Shale	250	-	360	
Sand & Shale	360	-	480	
Red Rock & Shale	480	-	690	
Sand & Shale	690	-	980	
Red Rock & Shale	980	-	1200	
Sand & Shale	1200	-	1640	
Blue Monday Sand	1640	-	1670	
Pencil Cave	1670	-	1690	
Big Lime	1690	-	1770	
Big Injun Sand	1770	-	1910	
Sand & Shale	1910	-	2250	
Gordan Sand	2250	-	2300	
Sand & Shale	2300	-	2470	
Fifth Sand	2470	-	2520	Show Gas
Sand & Shale	2520	-	3080	
Balltown Stringers	3080	-	3300	
Sand & Shale	3300	-	4380	
Benson Sand	4380	-	4400	
Sand & Shale	4400	-	4780	
Alexander Sand	4780	-	4800	
Sand & Shale	4800	-	5113	TD

08/31/2012 47-103-02813

2000 2015

#### State of West Virginia **Division of Environmental Protection** Section of Oil and Gas

Well Operator's Report of Well Work

Farm name:

H.G. ENERGY, LLC.

Operator Well No.: L.J. FLUHARTY NO. 7

LOCATION:

Elevation:

781'

Quadrangle:

PINE GROVE 7.5'

District:

**GREEN** 

County: WETZEL

Latitude: Longitude: 7,630 Feet south of 8,110 Feet west of

39 Deg 32 Min

30 Sec. 0 Sec. 80 Deg 40 Min

Company Address:	HG Energy 5260 Dupor Parkersburg		Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector:	Derek I	laught	- 11	Anmo	mry Wall	12)
Date Permit Issue	d: 08	3/31/2012	0.12			. 1
Date Well Work (	Commenced:	10/08/2012	717	e slausa		ly'
Date Well Work (	Completed:	11/01/2012	7011			art.
Verbal Plugging:		1.55	Qr.U1			.00
Date Permission C	Granted On:					
Rotary X Cal	ole F	Rig	7"	772'	772'	200 sks
Total vertical Dep	oth (ft):	2840'	# HCT			No.
Total Measured D	epth (ft):	2840'	1288		21	112-
Fresh Water Dept	h (ft):	180'	4 ½"	2755'	2755'	210 sks
Salt Water Depth	(ft):	1580'	11151		72-	uls
Is Coal being min	ed in ares (Y/N)?	No	alti	_		
Coal Depths (ft):	519'-527'	K L				123
	red (Y/N) depth(s NONE	):	8051		Ţ,	ă.
			1861			de de

$\cap$	D	EN	CI	$\cap$	XX/	$\mathbf{D}$	רו	^ ^
U	Г	CIN	$\Gamma L$	$\mathbf{U}$	VV	$D_{\Gamma}$	7 1	$\boldsymbol{\Lambda}$

\* Waterflood Producer

						2	000-2013
Producin	ng formation	(	Gordon	Pay zo	one depth (f	ft) 2	2619'-2621'
Gas:	Initial open flow	*	MCF/d	Oil: Initial oper	n flow	*	Bbl/d
	Final open flow	*	MCF/d	Final open	flow	*	Bbl/d
	Time of open flow	between in	nitial and fina	al tests	*	Hours	
Static ro	ck pressure	*	psig (su	rface pressure)	after	*	Hours
	•		1		.5	0.0	_
Second	producing formation				one depth (1	ft)	
Gas:	Initial open flow		MCF/d	Oil: Initial oper	n flow	13	Bbl/d
	Final open flow		MCF/d	Final open	flow	The state of the s	Bbl/d
	Time of open flow	between in	nitial and fina	al tests	0	Hours	1000
Static ro	ck pressure		psig (su	rface pressure)	after	SO S	Hours
						0	

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the

information is true, accurate, and complete.

Were

Mechanical,

or Geophysical logs recorded on this well?

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Treatment:

Treated perfs 2606'-2615' and 2619'-2621' w/ 250 gals 15% HCL acid, 250 bbls cross linked gel, and 7,600# 20/40 sand.

Well Log: All depths are measured relative to KB (8' AGL).

Shale w/ sand streaks	0	-	519
Coal	519	-	527
Shale w/ sand streaks	527	-	1107
Sand	1107	-	1150
shale	1150	-	1222
sand	1222	-	1232
shale	1232	-	1244
sand	1244	-	1288
shale	1288	-	1448
sand	1448	-	1511
shale	1511	-	1516
sand	1516	-	1544
shale	1544	-	1558
sand	1558	-	1568
shale	1568	-	1682
sand	1682	-	1706
shale	1706	-	1718
sand	1718	-	1728
Big Lime	1728	-	1778
Big Injun	1778	-	1998
shale	1998	-	2570
Gordon stray	2570	-	2588
shale	2588	-	2599
Gordon	2599	-	2621
shale	2621	-	2628
sand	2628	-	2634
shale	2634	-	2840
TD	2840		
T.DLogger	2798	KB	
T.DDriller	2840	KB	

09/14/2012 47-103-02831

# State of West Virginia Division of Environmental Protection Section of Oil and Gas Well Operator's Report of Well Work

Farm name:

WAYNE, ROBERTA B.

Operator Well No.: ANTHONY LOVEALL 10

LOCATION:

Elevation:

1,066'

Quadrangle:

PINE GROVE 7.5'

District:

**GREEN** 

County: WETZEL

Latitude:

13,115 Feet south of

39 Deg 32 Min 30 Sec.

Longitude:

4,955 Feet west of

80 Deg 40 Min 0

0 Sec.

Company Address:	HG Energ 5260 Dup Parkersbu		Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Inspector:	Derel	k Haught				
Date Permit Is	ssued:	09/14/2012	_			
Date Well Wo	ork Commenced:	11/10/2012				
Date Well Wo	ork Completed:	01/24/2013				
Verbal Pluggi	ng:					
Date Permissi	on Granted On:					
Rotary X	Cable	Rig	7"	1062'	1062'	240 sks
Total vertical	Depth (ft):	3140'				
Total Measure	ed Depth (ft):	3140'				
Fresh Water I	Depth (ft):	N/A	4 ½"	3066.15'	3066.15'	225 sks
Salt Water De	epth (ft):	1430'				
Is Coal being	mined in ares (Y/N	)? No	]			
Coal Depths (	ft):	804'-813'		MECEN	76D	
	intered (Y/N) depth NONE	ı(s):	Of	fice of O	& Gas	
				FEB 05	2013	

OPEN FLOW DATA	* Waterflood Injector	WV Departmen	le Oi
Producing formation	Gordon	WV Department Environmental Pro Environmental Pr	ft) 2929.5'-2942'
Gas: Initial open flo	w * MCF	d Oil: Initial open flow	
Final open flo	w * MCF		* Bbl/d
Time of oper	flow between initial and	final tests*	Hours
Static rock pressure	* psig	(surface pressure) after	* Hours
Second producing form	nation	Pay zone depth (	
Gas: Initial open flo		7d Oil: Initial open flow	Bbl/d
Final open flo	w MCF		Bbl/d
Time of oper	flow between initial and	final tests	Hours
Static rock pressure	psig	(surface pressure) after	Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the

information is true, accurate, and complete.

2/1/83 Date Were  $\frac{Y}{Y/N}$  Electrical,  $\frac{N}{Y/N}$  Mechanical,  $\frac{N}{Y/N}$  or Geophysical logs recorded on this well?

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

<u>Treatment:</u> Treated perfs 2906'-2908.5', 2913'-2918', 2932.5'-2936', & 2939.5'-2942' w/ 1250 gals 15% HCL acid, 389 bbls cross linked gel, and 20,000# 20/40 sand.

Well Log: All depths are measured relative to KB (8' AGL).

Shale w/ sand streaks	0	-	804
Coal	804	-	813
Shale w/ sand streaks	813	-	1351
Sand	1351	-	1385
shale	1385	-	1454
sand	1454	-	1473
shale	1473	-	1485
sand	1485	-	1539
shale	1539	-	1570
sand	1570	-	1592
shale	1592	-	1614
sand	1614	-	1638
shale	1638	-	1847
sand	1847	-	1870
shale	1870	-	2004
sand	2004	-	2026
shale	2026	-	2038
sand	2038	-	2049
Big Lime	2049	-	2102
Big Injun	2102	-	2304
shale	2304	-	2879
Gordon stray	2879	-	2896
shale	2896	-	2904
Gordon	2904	-	2920
shale	2920	-	2932
sand	2932	-	2936
shale	2936	-	2938
sand	2938	-	2942
shale	2942	-	3140
TD	3140		
T.DLogger	3118	KB	
T.DDriller	3140	KB	